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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,007	03/31/2004	Timothy A. Hindle	H0003993--1622	9568

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EXAMINER

SCHWARTZ, CHRISTOPHER P

ART UNIT

PAPER NUMBER

3683

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/816,007  
Filing Date: March 31, 2004  
Appellant(s): HINDLE ET AL.

**MAILED**

**NOV 09 2006**

**GROUP 3600**

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Alexander B. Ching  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 25, 2006 appealing from the Office action mailed February 15, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,763,884	Matsui et al.	8-1988
4,779,853	Sugino et al.	10-1988
4,811,919	Jones	3-1989
4,872,649	Kawamata	10-1989
5,332,070	Davis et al.	7-1994

6,082,508

Davis

7-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. '070 in view of Kawamata or Jones.

Regarding claims 1,8,16 and 21, as broadly claimed, Davis discloses a damper and isolator with which applicants are well familiar and upon which the present invention seems to be based.

Lacking is a discussion of the effective fluid mass and how this parameter may be adjusted to function as a fourth “tunable” parameter.

It is notoriously well known in the art to tune fluid mounts and dampers to damp specific vibrational frequencies by varying the respective areas of fluid chambers, the cross sectional areas of fluid passages, the areas of pistons etc. and/or the use of different fluids with different densities, or other properties, to create, change, or make use of a fluid inertia effect. This is generally taught by Kawamata in column 4 or Jones in column 7 lines 37-50. Note the discussion of the “fluid slug” throughout the specification of Jones.

The ordinary skilled worker in the art would have found it obvious at the time of the invention to have adjusted at least one of these well known variable parameters in the device of Davis, as taught by either Kawamata or Jones, to provide a damper which makes use of the fluid inertia effect (inherent in Davis) to isolate a specific range of vibrations.

Regarding the rest of the claims these requirements are met in view of the explanation given above, the strong similarity of the features of the instant application with the Davis patent and the teachings of the references to Kawamata or Jones and the common knowledge in the art regarding the dimensional changes to the structure that may be made to take advantage of the damping capabilities of fluids.

#### **(10) Response to Argument**

Appellant's arguments with respect to claims 1-25 have been considered but are not persuasive. Appellant's primary argument now is that no prima facie case of

obviousness has been made since all of the prior art references do not teach or suggest all of the claimed elements.

The examiner can not see any legitimacy to this argument given the identical structure between the prior patent to Davis et al. '070 and appellant's invention. Upon further review it would appear appellant's "fourth parameter", while not discussed, is inherently present in the Davis patent.

A prima facie case of obviousness has certainly been made.

Appellant's maintain there is no teaching or suggestion in Davis to add a fourth tunable parameter based on an effective fluid mass. It is further argued that neither Kawamata or Jones teach a fourth parameter that uses the effective mass of the fluid to enhance vibration damping and isolation.

As stated in appellant's specification at page 3 paragraph [0008] "the ratio of the cross sectional area of the first fluid containment chamber and the second fluid containment chamber to the cross sectional area of a damping path is shown to produce an effective mass of fluid for vibration isolation". At the bottom of page 3 and paragraph [0009] it is stated "The effective fluid mass provides a fourth parameter for the isolation system, which can lead to improved performance as compared with a three parameter system". This seems to summarize the gist of the invention and applicant's arguments.

However, as previously stated, and which goes to the heart of appellant's invention pursuant to their specification, it is notoriously well known in the art to tune fluid mounts and dampers to damp specific vibrational frequencies by varying the

respective areas of fluid chambers, the cross sectional areas of fluid passages, the areas of pistons etc. and/or the use of different fluids with different densities, or other properties, to create, change, or make use of a fluid inertia effect. This is generally taught by Kawamata in column 4 or Jones in column 7 lines 37-50.

Kawamata discloses a "liquid type mass damper" (see the title) that "...avoids the formation of a higher order resonance by utilizing the inertial resistance of a flowing liquid" ( see abstract). As discussed at the top of column 3 but more particularly in column 4 lines 25-46 Kawamata clearly illustrates that the chosen effective mass of the liquid, and the mass of liquid in the discharge tube, have a direct effect on the vibrational isolation capability of the mount.

In Jones note the discussion of the "fluid slug" throughout the specification. As the examiner previously recommended to appellant's also note the references to Matsui et al. and Sugino et al. for their specific discussions of using the properties of fluids to create a damping effect. See also the discussion in Davis '508 col 2 lines 25-28.

Contrary to appellant's arguments the reference to Davis '070 does not have to expressly "teach or suggest the proposed combination", but the rationale to modify the reference may be expressly or impliedly contained in the prior art, or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed Cir 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed Cir. 1992).

Appellant's are encouraged again to review the references applied against the claims as well as the references to Matsui et al., Sugino et al. and Davis '508, especially col. 2 lines 25-28.

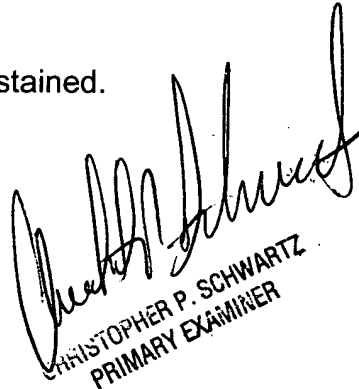
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Christopher P. Schwartz



CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

Conferees:

Chris Schwartz *CS*

Rob Siconolfi *RS*

James McClellan *JM*